

REMARKS

Claims 1-35 and 52-55 are pending and currently stand rejected. In view of the following remarks, Applicant respectfully requests reconsideration and allowance of all pending claims.

Claim Rejections – 35 U.S.C. § 102

Claims 1-3 and 52-54 stand rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,363,097 (hereinafter Linke). Applicants respectfully traverse.

To establish prima facie anticipation of a claimed invention, all the claim limitations must be taught by the prior art. Applicant respectfully submits that Linke fails to teach or suggest all of the claim limitations of the rejected claims. For example, claim 1 recites in pertinent part:

A method ..., comprising:

... "permanently modifying the effective refractive index of at least a portion of the intracavity waveguide segment." (emphasis added).

Applicant respectfully asserts that Linke in no way teaches or suggests "permanently modifying the effective refractive index of at least a portion of the intracavity waveguide segment" as recited in claim 1.

Page 3, section (5) of the Office cites col. 3, line 15 through col. 5, line 7 of Linke as disclosing "permanently modifying the effective refractive index of at least a portion of the intracavity waveguide segment". Applicant respectfully disagrees.

Rather, the cited portion of Linke discloses, "[t]he present invention preferably uses materials ... which make it possible to erase and rewrite

gratings" (emphasis added). Linke col. 3, lines 34-36. Linke further discloses, "[u]sing these photorefractive materials as reflective mirrors of the LD [i.e., laser diode] cavities, the operational wavelength of the LDs can be changed ..." (emphasis added). Linke col. 3, lines 37-40. Therefore, it is clear that Linke discloses changing the refractive index of a grating that serves as a mirror defining the laser's cavity. Therefore, the grating citing in Linke is not intracavity.

In contrast, claim 1 recites "permanently modifying the effective refractive index of at least a portion of the intracavity waveguide segment", which clearly refers to a waveguide segment within the cavity. Non-limiting examples of modifying the effective refractive index of at least a portion of the intracavity waveguide segment are illustrated in FIGs. 12A-12C in which a waveguide segment between grating 1230 and laser diode 1210 are modified. Modifying the refractive index of the grating (as disclosed in Linke) in no way teaches or suggests permanently modifying the effective refractive index of at least a portion of the intracavity waveguide segment as recited in claim 1. Therefore, Linke does not anticipate claim 1 or dependent claims 2 and 3.

Independent claim 17 contains a similar recitation of "intracavity waveguide" and, thus, claim 17 and dependent claims 18 and 19 are not anticipated by Linke for at least the same reasons that claim 1 is not anticipated.

Independent claim 52 contains a similar recitation "intracavity waveguide" and, thus, claim 52 and dependent claims 53 and 54 are not anticipated by Linke for at least the same reasons that claim 1 is not anticipated.

Claim Rejections – 35 U.S.C. § 103

Claims 4-16, 20-35 and 55 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Linke in view of U.S. Patent No. 6,167,169 (hereinafter Brinkman). Applicant respectfully traverses.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art (M.P.E.P. § 2143.03 citing *In re Royka*, 490 F.2d 981 (CCPA. 1974)). Applicant respectfully submits that the combination of Linke and Brinkman fail to teach or suggest all of the claim limitations of the rejected claims.

The office action acknowledges that Linke fails to disclose the type of material used for the waveguide segment. The office action then cites Brinkman as disclosing polymer materials to overcome the acknowledged deficiency of Linke. However, this cited disclosure of polymer material by Brinkman in no way overcomes the deficiency of Linke (failure to teach or suggest permanently modifying the refractive index of at least a portion of the intracavity waveguide segment). Because the cited combination of Linke and Brinkman fails to teach or suggest each and every element of claim 1, dependent claims 4-16 are not rendered obvious. For substantially similar reasons, the cited combination of references fails to teach each and every element of claims 17 and 52 and, thus, dependent claims 20-35 and 55 are also patentable over the cited combination.

CONCLUSION

In light of the foregoing remarks, all pending claims are believed to be in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested. If the Examiner has any questions or comments regarding this amendment, it is respectfully requested that the Examiner contact the undersigned at (206) 292-8600.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: June 13, 2003

L. E. Lycke

Lawrence E. Lycke (R. Alan Burnett - signing)
Reg. No. 38,540 (Reg. No. 46,149)

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